

WHAT IS CLAIMED IS:

1. A color image forming apparatus comprising:  
a transfer belt device which feeds a transfer member;  
a plurality of image forming units, which are disposed  
5 facing towards the transfer belt device, wherein each of  
the image forming unit forms a desired image and sequentially  
transfers the formed image on the transfer member fed by  
the transfer belt device; and  
wherein the transfer belt device at least in a portion  
10 in which the image forming units have been disposed is  
arranged such that it is inclined with respect to the ground.
2. The color image forming apparatus according to claim  
1, wherein the transfer belt device includes,  
15 a plurality of wheels; and  
an endless belt wound around the wheels,  
wherein the image forming units are arranged facing  
towards the transfer belt device along one of the directions  
in which the belt moves.  
20
3. The color image forming apparatus according to claim  
1, wherein the transfer belt device is inclined in such a  
manner that the end from which the transfer member is fed  
is at lower level than the end from which the transfer member  
25 is discharged.

4. The color image forming apparatus according to claim 1, wherein an angle of inclination of the transfer belt device with respect to the ground is between 35° and 55°.

5

5. The color image forming apparatus according to claim 1, wherein the transfer belt device can be turned on the axial center of one of the wheels constituting the traveling side at which the plurality of image forming units are arranged.

10

6. The color image forming apparatus according to claim 1, wherein each of the image forming units includes,

a rotary image carrier;

15

a developing unit which develops a latent image formed on the image carrier with a toner is located in a lower right quadrant when the transfer belt device in the image forming unit is positioned in a lower left quadrant as viewed in an axial direction in which the image carrier is rotated.

20

7. The color image forming apparatus according to claim 1, wherein each of the image forming units includes,

a rotary image carrier; and

a cleaning unit which cleans a toner remaining on the

25 image carrier is located in an upper left quadrant when the

transfer belt device in the image forming unit is positioned in the lower left quadrant as viewed on a center axis on which the image carrier is rotated.

5 8. The color image forming apparatus according to claim 6, wherein the cleaning unit of a lower one of the image forming units adjacent to each other and the developing unit of an upper one of the image forming units adjacent to each other are arranged at positions partly overlapping with each  
10 other in a vertical direction.

9. The color image forming apparatus according to claim 8, wherein a waste toner container containing therein a waste toner recovered by the cleaning unit is installed inside  
15 a space which is defined under the transfer belt device and is formed into a substantial triangle in cross section.

10. The color image forming apparatus according to claim 1, wherein a writing unit is provided for performing optical  
20 writing with respect to each of the image forming units and is slantwise disposed substantially in parallel to the transfer belt.

11. The color image forming apparatus according to claim  
10, wherein a heating and fixing unit is disposed downstream  
in a transfer member feeding direction of the transfer belt  
device and is positioned above the writing unit in view of  
5 a height level.

12. The color image forming apparatus according to claim  
10, wherein a space outside of the apparatus is defined  
between the heating and fixing unit and the writing unit.

13. The color image forming apparatus according to claim  
12, wherein the space outside of the apparatus is formed  
into the shape of a casing sunken between the heating and  
fixing unit and the writing unit.

14. The color image forming apparatus according to claim  
13, wherein the sunken portion of the casing serves as a  
sheet discharging tray for the transfer member discharged  
outside of the apparatus.

15. The color image forming apparatus according to claim  
11, wherein the heating and fixing unit includes a fixing  
roller, a pressurizing roller in press-contact with the lower  
portion of the fixing roller, a heating roller to be heated  
25 by heating unit and a belt wound across the fixing roller

and the heating roller, the heating roller is disposed more upstream in the transfer member feeding direction than the fixing roller, and the heating roller is positioned under the fixing roller.

5

16. The color image forming apparatus according to claim 11, wherein a reversing unit is disposed downstream in the transfer member feeding direction of the heating and fixing unit, a double-sided transporting path is provided for returning the transfer member reversed by the reversing unit to upstream of the transfer belt device, and the double-sided transporting path is slantwise disposed substantially in parallel to the transfer belt.

15 17. The color image forming apparatus according to claim 6, wherein a toner containing vessel containing therein a toner to be replenished to the developing unit in each of the image forming units is located at a position apart from the developing unit in each of the image forming units.

20

18. The color image forming apparatus according to claim 17, wherein the toner containing vessel is installed inside a space which is defined above the transfer belt device and is formed into a substantial triangle in cross section.

25

19. The color image forming apparatus according to claim 17, wherein an image forming section including the image forming units and the transfer belt device is detachably attached to the main body of the image forming apparatus independently of the toner containing vessel.

20. A toner replenishing apparatus for replenishing toner to a developing unit in each of the image forming units included in a color image forming apparatus, the replenishing apparatus comprising:

a container for storing the toner in powder form; and  
a powder pump which supplies the toner in the container to the developing unit in each of the image forming units.

21. The toner replenishing apparatus according to claim 20, wherein the powder pump is a uniaxial eccentric screw pump of a suction type disposed in the vicinity of the developing unit, and an air supplying unit supplies air to the powder containing vessel.

22. The toner replenishing apparatus according to claim 20, wherein the toner contained in the powder containing vessel is conveyed to the developing unit via a flexible toner conveying pipe.